

REMARKS

Claims 1-8 have been amended in order to more particularly point out, and distinctly claim the subject matter to which the applicants regard as their invention. Claims 9 and 10 are newly added.

Claim Rejections under 35 USC §103

Claims 1-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Murashita, U.S. Patent No. 6,330,574, in view of Dean et al., U.S. Patent No. 2002/0152244.

The present invention is according to claims 1 and 5 is a system and method for code processing of document data. Processing begins by encoding a document data written in an extensible text format description language of to code data using a translation table written in a description language of an extensible text format. The translation table defines link information of other translation tables. Also, the translation table defines a code length and a code assigned to items of the link information, an element name, an element value of the element name, an attribute name designated in the element name, an attribute value of the attribute name. Further, the translation table defines a code length and a code assigned for designate parentage structure between one element name and other element name.

Murashita describes compression and decompression of tags in a markup document. A tag code table is created based upon a tag extracted by a tag extracting unit. The Examiner asserts that the tag code table is equivalent to the translation table of the present invention. The Examiner

admits that tag code table of Murashita is not written in a description language of an extensible text format.

Dean et al. describes using lookup tables encoded as XML files. These lookup tables store translations of element names and help strings as well as labels. The Examiner admits that Dean et al. does not teach defining a code assigned to items of link information. Therefore, Dean et al. does not teach the “translation table defining link information of other translation tables, defining a code length and a code assigned to items of said link information, an element name, an element value of said element name, an attribute name designated in said element name, an attribute value of said attribute name, and defining a code length and a code assigned for designate parentage structure between one element name and other element name”.

First of all, combining Murashita’s translation table and Dean’s lookup table is not obvious. DTD and XLink indicated by Dean are not used for coding a document data.

Dean teaches that the lookup table stores the DATATYPE values for each DTD element (see paragraph [0157]). The DATATYPE attribute specifies a type of user interface UITYPE (see paragraph [0120]). The UITYPE is a type that can be included in each user interface. The lookup table is for constituting GUI from an XML document, and is not aimed at encoding XML document.

The present invention’s translation table stores variable-declaration data types of the element value and the attribute value. The translation table defines a code length and a code assigned to items of a variable-declaration data type of the element value, and of a variable-declaration data type of the attribute value. According to Fig. 5c, the variable-declaration data type is “10 bit of unsigned

integer” or “10 bit of signed integer”. As other, there are “double”, “float”, “char”, “choice”, for example. Therefore, the variable-declaration data type differs from the DATATYPE of Dean.

The present invention can encode the data type needed by the application since it defines a data type, a code length, and the number of the element value and the attribute value.

Murashita’s translation table can assign the code to the character (see 104a in Fig. 13). It does not assign the code to the data type of value. That is, Murashita’s translation table depends on the content, and one translation table relates to one contents or a specific plurality of contents.

However, the present invention’s translation table depends on a logical structure of elements, and one translation table relates to a plurality of contents. The present invention’s translation table corresponds to all the contents of HTML form.

Murashita in view of Dean teaches a translation table written in a description language of an extensible text format for further expanding the definition of the DTD.

In particular, Murashita must decode the received code data to a document data in a receiver (decompressing apparatus). Murashita’s translation table assigns the code to the character. Thus, the received code must be decoded into characters. Then, a logical structure of elements in the document data for consisting the characters is analyzed and processed by a parser.

On the other hand, the present invention can perform a document processing directly from the received code data in a receiver because the code contains logical structure of elements and the data type of each value. Thus, a parser is not necessary for the present invention.

The DTD generally defines the element (and the attribute) name and the parentage structure,

but does not define the element (and attribute) value and the data type. Murashita in view of Dean does not encode these values in a sender. Therefore, Murashita must translate the received code data to a document data in a receiver, and therefore must parse the translated document data. Thus, a parser is necessary for Murashita.

According to claims 9 and 10 of the present application, the translation table defines link information about other translation tables, the processing step processes the code data by replacing the translation table.

XLink can define link information about any other translation table, and is extensible. Thus, XLink does not replace the translation table.

According to the present invention, it is effective that a processing load is small for the receiver that has only low performance, for example, a portable telephone.

Thus, the present claims should be allowable over the cited prior art. Therefore, claims 1 and 5 patentably distinguish over the prior art relied upon by reciting, as exemplified by claim 1,

“A computer implemented method executable by a computer and embedded in a computer readable medium for code processing of document data comprising the steps of: encoding a document data written in a description language of an extensible text format to a code data containing logical structure of elements, based on a translation table written in a description language of an extensible text format; and processing said code data as said document data based on said translation table, said translation table; defining a code length and a code assigned to items of; an element name, an variable-declaration data type of an element value for said element name, an attribute name designated in said element name, an variable-declaration data type of an attribute value for said attribute name, based on logical structure of elements, and defining a code length and a code assigned to designate parentage structure between one element name and other element name.” (Emphasis Added)

Therefore, withdrawal of the rejection of Claims 1-8 under 35 U.S.C. §103(a) as being unpatentable over Murashita, U.S. Patent No. 6,330,574, in view of Dean et al., U.S. Patent No. 2002/0152244 is respectfully requested.

Conclusion

In view of the aforementioned amendments and accompanying remarks, claims 1-10, as amended, are believed to be patentable and in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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